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# St. Louis Metro Area Rail Gateway Enterprise

# DRAFT ENVIRONMENTAL IMPACT STATEMENT Technical Supplement RELOCATION OF ILLINOIS ROUTE 3

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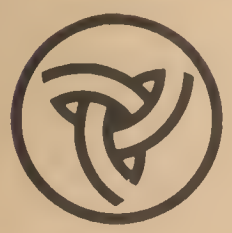

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# TECHNICAL SUPPLEMENT

# RELOCATION OF ILLINOIS ROUTE 3

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# EXECUTIVE SUMMARY

The need for relocating and expanding Illinois Route 3 has been recognized for 30 years. However, although the relocation of Route 3 has been completed between East Alton and the McKinley Bridge in Venice, the last link, a three-mile stretch connecting Venice with I-55/70 in East St. Louis, was never built. The cost of right-of-way, massive and numerous railroad grade separations, and maintaining good access to the National Stockyards was deemed too great to allow the new route to be completed. This situation has continued to be true over the ensuing years, and there is still no single good highway between East St. Louis and points north.

The St. Louis Metro Area Rail Gateway Enterprise (MARGE) proposes the construction of a new railroad yard, or expansion of the existing Madison Yard, through portions of National City and Brooklyn. Either of these yards would cut across Route 3 for a distance of about 3000 feet, thereby requiring its relocation. At the same time, the MARGE will eliminate many of the railroad tracks which have been the major obstacle to relocating Route 3 over the years. With these tracks gone, the completion of the missing link becomes more economical. Further, since the displacement of this road is a major impact of the MARGE project, it was necessary to evaluate its relocation in the MARGE Environmental Impact Statement (EIS).

Route 3 is now two-lanes wide from St. Clair Avenue to McKinley Bridge. Current and projected traffic volumes indicate that it should be replaced with two lanes, with a provision for staging an expansion of the road to four lanes when traffic volumes dictate. Three major criteria were employed to develop and evaluate alternatives: maintaining the continuity of highway traffic rail restructuring; offering the people in the communities of Brooklyn and Venice good access to a major highway; and providing access to a probable future road serving the redevelopment area between the Mississippi River and existing Route 3.

Due to the large expanse of rail facilities in the area, the three-mile relocation of Route 3 must closely parallel the "Q" rail corridor. Three alternatives, called the West Plan, the East Plan, and the Split Plan, were considered for the northern half (1.5 miles) of the Route 3 relocation. The West Plan, which would remain on the western side of the "Q Tower" rail corridor to south of National City, would provide for access to a new riverfront road, possibly with an interchange on the west side of "Q" Corridor. Access to Brooklyn could be provided via a grade-separation over Q Corridor, connecting to Big Bend Road. The East Plan, which remains easterly of Q Corridor, would cross that corridor near the St. Clair - Madison County Line. It would require a grade-separated crossing of "Q" Corridor to connect to a riverfront road. The Split Plan would stage-in two lanes on each side of Q Corridor. These alternatives are estimated to cost between $31 and $35 million, if all four possible lanes were constructed.

Most likely, the alternative selected for the relocation will be constructed in stages, and the first stage will probably be the two-lane relocation required for the MARGE project. The first-stage costs are estimated to be between $10 and $13 million.

This Technical Supplement to the Environmental Impact Statement on the MARGE project details the alternative alignments considered, and documents the environmental impacts of each.

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# PROJECT DESCRIPTION

## BACKGROUND:

The St. Louis railroad complex, alternately called a "gateway" or a "terminal", is of major importance to the national railroad network, and its vitality is critical to the industrial and economic health of the region. Geographically, it lies near the nation's center. Situated on the banks of the Mississippi, the Gateway takes in portions of the States of Missouri and Illinois. On the west side, the majority of the rail facilities lie near the river. On the east side, however, the network extends eastward some five miles to include the Alton & Southern (A&S) Corridor east of Washington Park. The major Illinois communities within the project area are East St. Louis, Granite City, Madison, Venice, Brooklyn, Cahokia, Centreville, Alorton, Dupo, Washington Park and Fairmont City. The southern boundary is the Bixby Rail Junction south of Dupo, and the northern boundary is Lenox Rail Tower in Mitchell. Exhibit A shows the St. Louis Gateway area.

The St. Louis Gateway is the second largest rail traffic routing center in the nation. The network includes track or facilities belonging to 14 major (Class I) railroad companies, and 3 Class II (switching) carriers. There are approximately 82 miles of mainline corridors in the gateway area. The sorting of cuts, or groups of cars, for delivery to individual railroads is mainly accomplished in two large common classification yards, Madison Yard on the north and Gateway Yard on the south. Specific classifications for distant points in the country are performed in a series of "home" yards where individual railroads also handle piggyback, or trailer traffic. Gateway Yard is operated by the Alton and Southern Railroad, while the Terminal Railroad Association (TRRA), a corporation composed of thirteen railroads operating in the complex, manages the functions of Madison Yard. Individual roads are charged by either of these switching carriers for the rail cars which go through the classification process in their facilities.

Railroad freight terminals, such as the one in St. Louis, are typically bottlenecks in the operation of rail systems. Increased rail traffic and age have reduced the efficiency of terminal operations and shipments often encounter excessive delays moving through congested switching and classification facilities. Facilities built early in the development of the rail system have become obsolete, but have continued to occupy sizable amounts of land, constraining land use patterns and forming barriers to social and commercial activity.

In the St. Louis Gateway the situation is worsened by the continued presence of yards and tracks originally built near the river to hold cars awaiting the ferry crossing. These facilities became unnecessary as bridges were built and were used less and less until, in some cases, they were virtually abandoned. As in other urban rail terminals, this has served as a blighting influence on the area's economic development. Further, underutilized railroad properties do not yield tax revenues proportional to the amount of land they cover. The complicated network of yards and track has also produced a contorted street system where delays to vehicular traffic are frequent and lengthy. This combination of problems attributable to railroad influences has lead the Federal Railroad Administration (FRA) and the Illinois Department of Transportation (IDOT), in concert with other state and local officials, to seek ways to improve rail operations and to create valuable urban development opportunities by freeing riverfront land.

## ST. LOUIS METRO AREA RAIL GATEWAY ENTERPRISE:

The efforts of the FRA and IDOT toward resolving the problems of the St. Louis Gateway through railroad improvements were focused into a three phase program entitled the Metro Area Rail Gateway Enterprise or MARGE. The program focused on accomplishing the following three objectives:

- To improve the efficiency of railroad operations within the St. Louis Terminal
- To reduce rail/community conflicts
- To provide opportunities for economic and community development.

Phase I, which was successfully completed in December, 1977, was limited to the development and preliminary examination of operationally feasible physical restructuring alternatives. This initial study was jointly directed by the Federal Railroad Administration and all 17 railroads operating in the Terminal.

Phase II, which was begun in January, 1979, is a more comprehensive study to refine the restructuring plans and resolve the various railroad institutional issues as well as to analyze the community and environmental impact issues. Phase II includes estimation of costs and benefits for each of the railroads involved, together with a comprehensive cost/benefit analysis of the railroad restructuring, and will culminate in the publication of an Environmental Impact Statement. Managed by the Illinois Department of Transportation, under contract to the FRA, Phase II has sought active involvement by the various local communities in the Gateway area, and continued the strong railroad role of Phase I.

Phase III involves final design engineering and actual construction of improvements to the rail yards and corridors in the terminal. It begins after an alternative plan for the restructuring is selected.

RESTRUCTURING ALTERNATIVES:

There are currently some 63 railyards in the St. Louis Gateway. The MARGE project proposes consolidation of many of the smaller rail yards into two or three larger yard facilities. Three "build" alternatives are fully evaluated. Each alternative differs by the number of common carrier yards and by the routing of the corridor traffic. In addition, the existing 1979 conditions and the Year 2000 "No Build" alternative are analyzed and compared.

The actual yard restructuring alternatives exhibit differences in both the number of yards which would be constructed and the manner in which those yards would operate:

- Two-Yard Alternative - This plan calls for the expansion of the two existing classification yards. The Gateway Yard, located south of East St. Louis, would be expanded eastward. This area is partly within the boundaries of Centreville, Illinois and is currently agricultural and residential. The Madison Yard, which is just east of the residential areas of Venice, would be modified and expanded south past the residential areas of Brooklyn and National City.

- Three-Yard Directional Alternative - This plan involves the expansion of Gateway Yard, minor improvements to Madison Yard and the construction of a third yard, the "New Yard". This third yard would be located just south of Madison Yard, adjacent to the town of Brooklyn. Madison Yard would then function as an industrial support yard with the classification functions transferred to New Yard. The Directional distinction refers to the operational plan for the yards, which would have one yard handle trains coming from the East and headed West, and the other coming from the West and headed East.

- Three-Yard Bidirectional - This plan is distinguished from the above only in the operational plan of car and train routing. Each yard would route traffic in all directions. The physical configurations of the yards would be similar to the Directional Plan, except that the New Yard would be located approximately 200 feet further from the residential areas of Brooklyn, and that the expanded Gateway Yard would be constructed about 200 feet farther south from the housing areas of Centreville.

- No-Build Alternative - As a bench mark against which to analyze the "build" alternatives, a "no-build" situation has also been studied. This plan assumes that no improvements are made to the Gateway terminal. The No-Build Alternative assumes that the same traffic levels will exist in St. Louis in the Year 2000 as are projected for the Build cases. This traffic, to the extent it overtaxes the common classification yards, would be handled at individual rail yards.

Several elements of the consolidation are the same across all the "build" alternatives.

- A segment of Illinois Route 3 would be relocated in order to bypass the expanded yards. The designated section begins just south of Merchants Bridge in Madison County as a four-lane highway and continues 3 miles south as a two-lane road through Venice and Brooklyn, past National City, ending at St. Clair Avenue in East St. Louis. The relocation would provide a two- or four-lane, limited access highway for this distance.

- A common trailer-on-flatcar (TOFC) yard would be constructed east of Brooklyn and north of East St. Louis. The location is convenient to a major interchange connecting Illinois Route 203 and Interstate 70, providing excellent access for trucks. A major rail corridor runs just west of the site. Eight or nine of the thirteen Class I carriers would consolidate their TOFC, or piggyback operations into that one yard.

- There are approximately 82 miles of mainline rail corridor in the project area and much of this would be upgraded under all of the build alternatives. Track would be physically improved by laying new or replacement track and modern centralized signaling systems would be installed. Several new rail connections or interlockings would be constructed, but the locations of the corridors and existing interlockings would remain the same. Rail operations and train routings may vary across alternatives, but the basic corridor network does not.

- Seventeen grade-separation structures are warranted under all the build alternatives, due to the large delay- and collision-related conflicts which occur in the project area. Seven of these would be warranted because of yard expansions; the remainder are warranted due to conflicts along the rail corridors. Nine of these structures would also be warranted under the No-Build Alternative.

# BACKGROUND

In 1959, the firm of H. W. Lochner, Inc. prepared a study for the Illinois Department of Transportation proposing relocating and expanding Illinois Route 3. Implementation of this plan would have provided a limited-access highway between Interstate 55/70 in East St. Louis and Interstate 270 north of Granite City. Coupled with the proposed Alton Beltline Extension, the project would have provided a superior highway between East St. Louis and Alton, the need for which has been recognized for 30 years.

This relocation of Illinois Route 3 has been completed between East Alton and the McKinley Bridge in Venice, but the last link was never built. The cost of right-of-way, massive and numerous railroad grade-separations, and maintaining good access to the National Stockyards was deemed too great to allow the new route to be completed. There is still no single good highway between East St. Louis and Alton, and at present, drivers avoid this section of Route 3 because of the high probability of lengthly delay by trains at the many at-grade crossings.

Construction of the new rail yard or expansion of existing Madison Yard under the St. Louis Metro Area Rail Gateway Enterprise would cut across Route 3 diagonally for a distance of about 3000 feet, thereby requiring its relocation in some manner.

Since the relocation of Illinois Route 3 is essential to allow the expansion of Madison Yard or the construction of New Yard, and is therefore common to all Build Alternatives of the overall project, and since the displacement of Route 3 would be a major impact of the restructuring, it is necessary to address its relocation in this EIS. The relocation alternatives and their impacts are therefore discussed in the EIS and summarized in this Report.

In looking for ways to effect the relocation of Illinois Route 3, three primary criteria were employed:

- maintaining continuity of highway traffic throughout the various stages of rail restructuring. This means that Route 3 must be relocated in a manner which does not conflict with the essential operations of the railroads, and which will be compatible with new rail facilities and other changed conditions

- offering the people in the communities of Brooklyn and Venice good access to a major highway

- providing access to any future riverfront development roads between the Mississippi River and the rail corridor known as "Q Tower Corridor", or simply "Q". This corridor currently separates the communities of Brooklyn, Venice, and others from the Riverfront. The removal of many rail facilities in this area and plans for the area's future development indicate a need for improved highway access. The final location of any development-area road would appropriately be a part of the riverfront development plan. However, the impact of the relocation of Route 3 on access to the area must be considered as a part of the relocation study.

Initially, a new alignment for Route 3 along the eastern edge of the proposed New Yard (or expanded Madison Yard under the Two-Yard Alternative) was considered. It avoided the need for all but one rail grade-separation (although that one was over 2,000 feet long), and seemed easiest to construct in stages while the rail restructuring was proceeding. However, as awareness of the importance of the third criteria above grew, the disadvantages of this route became more apparent. It would not serve any new demand arising from Riverfront development. Further, it did little to improve the access of the communities of Brooklyn and Venice, especially to East St. Louis. It became clear that, in order to address all three criteria, an alignment along the western side of New/Expanded Madison Yard would be necessary.

Due to differing conditions along its alignment, consideration of alternatives for the relocation of Route 3 was divided into two halves.

The northern half of the relocation runs 1.5 miles south from a point just north of McKinley Bridge, ending south of the town of Brooklyn. The southern half continues from there another 1.5 miles to a connection with St. Clair Avenue in East St. Louis, just north of Interstate 55/70, where Route 3 is currently marked.

In the northern half, few alternatives are possible. Clearly, the northern half of the relocated Route 3 would have to "hug" the railroad corridor, or else cause substantial displacements in Brooklyn. Three alternative alignments were therefore developed, called the "West Plan", the "East Plan", and the "Split Plan", from their locations relative to Q Corridor (see Exhibits F1, F2, and G, respectively). In order to address the need for future expansion of Route 3, the design of each of these options allowed for four lanes to be built.

The southern half of Route 3 (south of Brooklyn) also offered a major corridor choice. Currently, Route 3, coming from the south, joins I-55/70 near the Mississippi River, then runs along it easterly to the St. Clair Avenue interchange. Route 3 exits there, and continues north. This same routing could be retained, or a direct connection between the segments of Route 3 could be attempted in the vicinity of the east approach to the I-55/70 Mississippi River Bridge, or to the I-55/70 interchange with Martin Luther King Bridge (FAU 9183).

From the outset, the benefits of being able to join the portions of Route 3 together without carrying it along the Interstate were obvious: easing traffic flow on I-55/70, improving the continuity along Route 3, etc. Unfortunately, the route along the Riverfront from Brooklyn south is criss-crossed with rail tracks and yards. Few, if any, of these tracks could be removed from the Riverfront until New or Expanded Madison Yard and other improvements are constructed to provide needed rail yard capacity; and, likewise, neither of these yards could be built until Route 3 is relocated. Therefore, the decision was made to connect Route 3 back to its current alignment along St. Clair Avenue.

Once this choice was made, the alternative-alignment selection became a relatively easy task of finding the lowest-cost route across the ends (throats, in rail terminology) of New/Expanded Madison Yard and the TRRA's CD Yard, which is to be retained under the MARGE project. A grade-separation structure of from 1,540 to 2,290 feet long (depending on whether it connects to the West Plan or the East/Split Plans) would be required to accomplish that portion of the relocation.

In summary, three major "build" alternatives for the relocation of Illinois Route 3 have been developed, as well as a "No-Build" Alternative:

- West Plan (Alternative 1, as shown in Exhibits B, C, and F1): Provide a two-lane highway, with provision for expansion to four lanes, between McKinley Bridge in Venice and St. Clair Avenue in East St. Louis, paralleling the railroad line known as "Q Corridor" along its western side to south of the town of National City, Illinois, thence swinging southeast over the throats of New or Expanded Madison Yards and CD Yard to a connection with St. Clair Avenue. An interchange near the midpoint of this three-mile distance would cross the rail corridor and provide access to the town of Brooklyn, connecting it to the highway and to any future Riverfront development roads. An interchange would also be provided at the intersection of relocated Route 3 and the McKinley Bridge approach.

- East Plan (Alternative 2, as shown in Exhibits B, C and F2): Provide a two-lane highway, with provision for expansion to four lanes, from McKinley Bridge in Venice to St. Clair Avenue in East St. Louis, paralleling the Q railroad corridor along its eastern side to a point south of National City, thence swinging southeast over the throats of New/Expanded Madison and CD Yards to a connection with St. Clair Avenue. The East Plan would cross Q Corridor just north of the Madison-St. Clair County line, so that the interchange with the McKinley Bridge approach would be identical to that under the West Plan. An interchange near the middle of this three-mile stretch would connect the town of Brooklyn to the Riverfront and any development roads.

- Split Plan (Alternative 3, as shown on Exhibits B, C and G): Provide a two-lane highway along the eastern side of Q Corridor, as in the East Plan, with provision for expansion to four lanes by placing two lanes on the western side of Q Corridor, to a point south of National City. From there, the lanes on the west side of Q Corridor would swing southeast over the railroad, joining with the eastern lanes and continuing across the throats of CD and New/Expanded Madison Yards to a connection with existing Route 3 (St. Clair Avenue) in East St. Louis. The interchange with the McKinley Bridge approach would be identical to the design under the other alternatives, the structure carrying the east two lanes across Q corridor would be the same as under the East Plan, and the interchange to connect Brooklyn to the Riverfront area would be similar to that under the East Plan.

- No-Build Alternative: Do not provide a relocated Illinois Route 3. This requires either that Route 3 be closed to traffic, or that the rail restructuring project not go forward. (Alternatives to the expansion of Madison Yard or the construction of New Yard are not feasible, as documented in the EIS on the MARGE project.)

The southern portion of either of the build alternatives could be built with the elimination of a few railroad spur tracks, which must be removed to accommodate the yard expansion anyway. The completion of this portion would allow CD Yard to continue to operate and would also allow for construction of the New Yard or Expanded Madison Yard. Once one of these were in operation, other rail facilities along the northern portion of the highway relocation could be removed. The alignments proposed provide excellent access for Venice and Brooklyn, as well as other communities in the area.

The East Plan and Split Plans, which cross the "Q" Corridor near the St. Clair - Madison County Line, would provide direct access to Brooklyn. However, each would require a grade-separated crossing of "Q" Corridor to connect each to the riverfront development area. The West Plan would allow for direct access to any riverfront road, but would still require a railroad grade separation in order to provide access to Brooklyn.

Route 3 passes through a primarily industrial area, with little or no need to accommodate pedestrian or bicycle transportation. In the areas of Venice and Brooklyn, local input will be solicited to determine the need for sidewalks. Access to the relocated Route 3 will be limited to the minimum necessary, in order to maintain the smooth flow of traffic along the route.

Major construction would be required under any of the alternatives to maintain access to the McKinley Bridge approach. However, sufficient design has been completed to ensure that this interchange is feasible. Rehabilitating McKinley Bridge and bringing it back into active railroad service is an option under the MARGE project, although it has not been recommended for implementation. Plans for this option have been completed, and show that a minimum clearance of 16 feet to bottom of steel can be maintained over Route 3 as it approaches the interchange. These rail plans also require the relocation of the McKinley Bridge toll booths and office, which will ease the difficulty of connecting relocated Route 3 into the bridge's highway approach. Finally, it should be noted that it may be possible to design a full diamond interchange at McKinley Bridge, which would improve access at no additional environmental or relocation cost. This possibility will be explored further prior to finalizing this EIS.

## CONSTRUCTION STAGING AND COSTS

The alternatives discussed above have been examined to develop construction staging plans and cost estimates for each. These are provided below. In general, the right-of-way would be 175 feet wide for both the East and West Plans. Further, the Split Plan has been assumed to require the same amount of right-of-way as both of the other Plans (i.e. 175 feet on each side of Q Corridor). This is due to the need to provide an adequate buffer zone on each side of Q Corridor for safety (so that derailed trains would not endanger vehicular traffic), and for railroad maintenance roads on each side of the tracks.

Alternative 1 - West Plan:

- Stage 1 - Beginning at the south termini on St. Clair Avenue construct two lanes across the CD Yard, New/Expanded Madison Yard, and "Q" corridor (on structure) and proceed northerly on the west side of "Q" corridor to a point south of Brooklyn; construct a structure across Q corridor to provide access to the Riverfront area and connect relocated Route 3 to existing Route 3. Stage 1 construction should allow for the eventual expansion of Route 3 to four lanes. The estimate of cost is $12.3 million, not including land acquisition, since much of the land may be acquired by "trading" that of the current Route 3 alignment to the railroads involved (as in the other alternatives, below).

- Stage 2 - Construct two lanes from McKinley Bridge southerly along the west side of Q corridor to the structure, terminating at Stage 1. The estimate of cost is $3.6 million.

- Stage 3 - Construct an additional two lanes for the entire project length. The cost estimate is $15.7 million.

- The total cost of Alternative 1 would be $31.6 million.

Alternative 2 - East Plan:

- Stage 1 - Beginning at the south termini on St. Clair Avenue construct two lanes across CD and the area to be occupied by New/Expanded Madison yards (on structure) and proceed northerly along the east side of "Q" corridor to a point on existing Route 3 south of Brooklyn;

near the northern termini construct a structure over "Q" corridor to provide access to the Riverfront area. Stage 1 construction should allow for eventual expansion of Route 3 to four lanes. The estimate of cost is $10.0 million.

- Stage 2 - Construct two lanes from McKinley Bridge southerly on the west side of "Q" corridor, with a crossover to the east side of Q corridor, and terminate at Stage 1. The estimate of cost is $7.7 million.

- Stage 3 - Construct an additional two lanes for the entire project length. The estimate of cost is $17.6 million.

- The total cost of Alternative 2 would be $35.3 million.

Alternative 3 - Split Plan:

- Stage 1 - See Stage 1, Alternative 2 (East Plan). Cost: $10.0 million.

- Stage 2 - See Stage 2, Alternative 2 (East Plan). Cost: $7.7 million.

- Stage 3 - See Stage 3, Alternative 1 (West Plan). Cost: $15.7 million.

- The total costs of Alternative 3 would be $33.4 million.

In general, the advantages of the "build" alternatives include improved driver safety, increased highway capacity (with relief for traffic congestion both along current Route 3 and in the communities of Brooklyn and Venice), decreased conflicts between trains and vehicular traffic, with fewer accidents and delays expected, release of right-of-way for the rail yard expansion (the benefits of which are fully discussed in other portions of this EIS), the provision of construction jobs, and the enhancement of development, both along the alignment and within the Riverfront area.

The disadvantages of the build alternatives include the cost (estimated at $31 to $35 million), and the need to acquire right-of-way. Specific social, economic, and environmental impacts are discussed below.

NOISE IMPACTS:

The average daily traffic (ADT) on this section of Route 3 currently ranges between 4,700 and 6,600 vehicles per day. Traffic is expected to increase to 12,000 - 13,000 vehicles by the year 2000. Both relocation alternatives have been designed to be expandable in order to handle 15,000 vehicles per day to insure adequate capacity beyond the target year.

For the purposes of calculating existing noise levels for Route 3 traffic, the peak hourly traffic volumes were found to be 8% of the total ADT. The present speed limit is 35 miles per hour. Design speed for the relocated facility would be 50 mph for both alternatives. The vehicle mix is currently 86% automobile, 5% medium trucks and 9% heavy trucks and was assumed to be the same under all build alternatives. Noise levels were predicted at four receptor sites using the FHWA's Highway Traffic Noise Prediction Model based on the peak hourly traffic volume. The predicted maximum hourly noise levels for each alternative are given in Table 1.

A major noise impact is defined to occur if the change in noise levels exceeds 10 dBA, or if the design noise levels are exceeded. The maximum acceptable external noise level for residences is 67dBA $L_{eq}$, as

TABLE 1: Noise Levels Due to Route 3 Relocation*

| Site Number | Community | Receptor Location | 1979 existing | No Build 2000 | West Plan | East Plan | Split Plan |
|---|---|---|---|---|---|---|---|
| 1 | National City | Cahokia St. & Route 3 | 70 | 74 | 53 | 55 | 54 |
| 2 | Brooklyn | Jefferson St & Route 3 | 67 | 71 | 66 | 71 | 68 |
| 3 | Venice | Route 3 & Kerr St. | 69 | 73 | 59 | 57 | 56 |
| 4 | Venice | 2nd St. & Ashbrook St. | 51 | 55 | 66 | 68 | 67 |

Note:

*Measured on the $L_{eq}$ dBA scale, which is decibels on the "A" scale. The maximum acceptable external noise level for residences is 67 dBA $L_{eq}$. Note that these measurements and predictions do not include the unregulated noise emissions from the rail operations along Q Corridor, and therefore overstate the impact of the highway noise impacts of this relocation.

specified in the Federal-Aid Highway Program Manual, Volume 7, Chapter 7, Section 3 (FHPM 7-7-3). Noise contours at the 67 dBA level are shown on Exhibits F1, F2, and G for each of the design alternatives.

The noise levels at all existing residences in National City would decrease by 19 to 21 dBA under all design alternatives since Route 3 would be relocated approximately 1000 feet away from the town. The noise levels in Brooklyn would exceed acceptable levels by 1 to 4 dBA if the East or Split Plans were constructed or if Route 3 remained in its current location and the No-Build Alternative were selected. This impact is considered to be too small to warrant mitigation, especially snice this impact is predicted without accounting for the contribution to ambient noise levels of the unregulated rail traffic along Q corridor. Once the noise contribution of Q corridor is included the noise impacts of Route 3 become insignificant. The West Plan would lower noise levels by 5 dBA to an $L_{eq}$ of 66 dBA, since Route 3 would be located some 300 feet further from the residential area of Brooklyn. The noise levels in Venice along the existing Route 3 would decrease by 14-17 dBA under all designs.

The noise levels in western Venice along 2nd Street would increase by 11-13 dBA under both alternatives. The noise levels under the West Plan would be slightly lower, since Route 3 would be relocated at a greater distance from most of the town's residences. Again, this impact does not account for the unregulated noise emissions of rail traffic along Q corridor.

Construction Noise Impacts:

All existing land uses and land use activities immediately adjacent to the proposed project are likely to receive excessive noise during the construction period of the project. Trucks produce the most construction noise because they are used for long periods of time and are not confined to the site. Bulldozers, air compressors, drills, generators, and other tools combine to increase the noise output. Noise levels in the range of 70-95 dBA are typical at 100 feet. These impacts will be mitigated through applying the Illinois Department of Transportation's Standard Specifications for Road and Bridge Construction, as discussed in more detail in the Noise Analysis Technical Supplement to the EIS.

NATURAL ECOLOGICAL SYSTEMS:

The impacts of construction of the Route 3 relocation must be assessed under all three design alternatives. All alternatives involve the construction of two-lane and four-lane roads with median strip and berms, and all have approximately the same impacts (see Table 2 for a summary). Exhibit E shows the Natural Environments affected by the overall MARGE project, including Route 3. The agricultural production impacts of this loss are explained in the body of the EIS.

The relocation of Route 3 would result in the total loss of 6 acres of prime farmland. The construction of the West Plan would also result in the total loss of cultivated fields, old field, urban and wetland habitats (see Table 2). The impacts of the loss of the upland habitats would be negligible due to the dimensions of the habitats and the high degree of human disturbance presently inflicted upon the area. The wetland area affected is a small section of the southwest corner of the Horseshoe Lake system (Exhibit B). This wetland area is presently dry with few remnants of wetland vegetation. Every year cultivation encroaches further into this area. The impact of construction of this section of wetland would be minimal due to its lack of indigenous floral forms and complete lack of wetland fauna.

With proper mitigation the remaining wetland could be enhanced through revegetation. The West Plan also involves the loss of 0.3 acres of lentic surface water. This is part of two adjoining ponds containing approximately four acres of surface water. The ponds are owned and used by Union Electric Company for disposal of liquid wastes from a variety of maintenance operations. There is no outlet from either pond. They are both posted and no trespassing is allowed. The area of the southern most pond, to be incorporated into construction, has a vegetational association comprised primarily of cattails and willows. Rooted acquatic vocrophytis are also present in significant quantity, along with scattered species of typical wetland forms. A U.S. Army Corps of Engineers "404 Permit" may be required to permit construction of the West Plan.

TABLE 2

IMPACTS ON NATURAL ECOLOGICAL SYSTEMS
WITHIN CONSTRUCTION AREAS
OF ILLINOIS ROUTE 3 RELOCATION
(ALL BUILD ALTERNATIVES)

| Option | Affected Habitats | Short-Term Impacts | Long-Term Impacts | Lands Altered or lost |
|---|---|---|---|---|
| 1- West | Cultivated Field | disruption | total loss | 10.5 acres |
| | Old Field | disruption | total loss | 8.3 acres |
| | Urban field | disruption | total loss | 9.5 acres |
| | Wetland | disruption | total loss | 0.5 acres |
| | Lentic | disruption | total loss | 0.3 acres |
| 2- East | Cultivated Field | disruption | total loss | 10.5 acres |
| | Old Field | disruption | total loss | 3.2 acres |
| | Urban field | disruption | total loss | 9.5 acres |
| | Wetland | disruption filling | total loss | 0.5 acres |
| 3- Split | Cultivated field | disruption | total loss | 10.5 acres |
| | Old field | disruption | total loss | 5.7 acres |
| | Urban | disruption | total loss | 9.5 acres |

Evidence of wildlife using the area suggests muskrats and waterfowl, which are highly mobile forms and could easily relocate. With proper mitigation the remaining surface water could be protected and the habitat enhanced. Field reconnaisence, literature searches, and coordination with the Illinois Department of Conservation and the Fish and Wildlife Service of the U.S. Department of the Interior revealed that there were no threatened or endangered species in either the upland or wetland habitats, and, due to their present dimensions and conditions, the potential for their being affected is low. Executive Order 11990 "Protection of Wetlands" would be complied with, as discussed in the Natural Systems Technical Supplement.

The East Plan incorporates the same habitats as the West Plan with two exceptions. The interchange would be located on the east side of Route 3, thus not affecting the surface water, and there would be less old field incorporated into construction.

The Split Plan would also affect the same habitats as the West Plan. Exceptions to this include the location of the interchange on the east side of Route 3, resulting in no loss of surface waters and realigning the Bend Road structure in a southerly direction, which would eliminate the loss of wetlands in the Horseshoe Lake system.

Lastly, there are no stream crossings contemplated. More details on the ecological impacts of the Route 3 relocation are given in the Natural Systems Technical Supplement to the EIS. Documentation of coordination with other affected agencies, including the Illinois Department of Conservation and the Fish and Wildlife Service of the Department of the Interior, are also provided there.

AIR QUALITY IMPACTS:

The rerouting and improvement of Illinois Route 3 will facilitate a higher average speed, allow a doubling of the maximum hourly traffic, relocate the highway farther from most existing receptors (residences), and eliminate intersections where traffic currently may become stopped by railroad traffic. Overall, the improvement will result in air pollutant concentrations decreasing by the Year 2000 compared with current levels.

For the Year 2000 No-Build Alternative, the calculations assume an ADT of 12,000, an average speed of 35 mph during the 8-hour peak period, and traffic blockages due to railroad traffic 10% of the time. For the maximum 1 hour period, assumptions include an average speed of 5 mph during the entire period. Due to the newer vehicular fleet that will be operating in the Year 2000, and the effects of the State's proposed Vehicle Inspection/Maintenance program (see the Natural Systems Technical Supplement), the maximum 1-hour and 8-hour carbon monoxide concentrations are computed to be 2.0 and 1.5 parts-per-mile (ppm) above background levels, respectively, well below the National Ambient Air Quality Standards (NAAQS).

In the Year 2000, assumptions for all build alternatives are the same: an ADT of 15,000, average speed of 50 mph, and no traffic blockages due to railroad traffic. In addition, the computations take into consideration the substantially lower emission rates in the Year 2000 and the effects of the proposed I/M program. The calculations indicate that both the 1-hour and 8-hour maximum carbon monoxide concentrations would be less than 1 ppm.

Finally, calculations were made to evaluate the potential effects of the Illinois Route 3 improvements at railroad grade crossings (identified as Crossings 16 and 17 in the Grade Separation Analysis Technical Supplement to the EIS). The calculations for 1979 assume ADT's of 4700 to 6600, an average speed of 35 mph, and that automotive traffic is blocked 10% of the time. The calculations indicate that in 1979, maximum 1-hour and 8-hour carbon monoxide concentrations are 5.9 and 2.0 ppm above ambient background levels, respectively (well below NAAQS).

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The rerouting and improvement of Illinois Route 3 will facilitate a higher average speed, allow a doubling of the maximum hourly traffic, relocate the highway farther from most existing receptors (residences), and eliminate intersections where traffic currently may become stopped by railroad traffic. Overall, the improvement will result in air pollutant concentrations decreasing by the Year 2000 compared with current levels.

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During construction and dismantling activities, dust would be raised by construction and earthmoving operations. The quantity of fugitive dust from construction activities would vary depending on the area of land being worked, the level of activity, the soil silt content, the soil moisture, and wind speed. While the contribution of the proposed project to the total suspended particulates in the surrounding area will be small and of short-term duration, the construction will generate fugitive dust that may be a nuisance in nearby areas.

During construction, blowing dust from areas being cleared or excavated can be minimized in several ways. Water can be applied to unpaved raod surfaces with a sprinkler truck. On roads carrying heavy construction traffic, crushed gravel can be spread in conjunction with the normal sprinkling of the road with water. The effectiveness of watering depends on the frequency of application. The air quality impacts of fugitive dust will be low, limited to the immediate area, of short duration, and of insufficient magnitude to cause violation of NAAQS.

Construction vehicles will emit carbon monoxide, hydrocarbons, and oxides of nitrogen. The magnitude of air quality impacts resulting from exhaust emissions would be low, limited to the immediate area, and insufficient to cause violation of NAAQS.

## ARCHAEOLOGICAL, ARCHITECTURAL, CULTURAL, AND HISTORIC IMPACTS:

The entire MARGE project area has also been investigated for sites of archaeological, architectural, cultural or historic significance. The EIS contains a full discussion of the studies performed, sites identified, and recommendations.

For Route 3, separate investigations were carried out. No sites of prehistoric significance were located in these investigations. As for architectural, cultural and historic sites, only one has been identified in the relocation corridor, the "Wabash Roundhouse." This Roundhouse would not be displaced by any of the design alternatives, although it may be included in a quandrant of the Bend Road interchange under both the East and Split Plans, and therefore requires further study.

Recommendations of significance for cultural resources located within the area of the proposed undertaking's potential environmental impact are based on the criteria for evaluating sites for inclusion in the National Register of Historic Places. The National Register criteria include integrity of location, design, setting, materials, workmanship, feeling, and association. In addition to integrity, the site must have one of the following: association with significant events or persons; exhibition of distinctive workmanship, style, or period; or the fact that the site has yielded or may yield important information in prehistory or history.

Significance of historic sites in the project area is predicted on factors of preservation, or sites with *in situ* remains. However, a second criteria, the presence of surficial integrity in which discrete concentrations of artifacts still exist that, through a strategy of controlled surface collection, may yield important information in history, will also qualify a site for nomination to the National Register of Historic Places. Significance of historic sites, in addition to being based upon extent of preservation, involves determination of whether the particular site(s) is reflective of long-term use of the region or contains data about a portion of the area's history not recoverable through any other means.

Throughout the cultural resources work on the project, coordination has been maintained with the State Historic Preservation Officer relative to the identification of sites ,within the impact area of the overall project as well as the Route 3 relocation, that meet the criteria for inclusion to the National Register of Historic Places, and the evaluation of the project's effect on such sites.

As noted above, no sites of archaeological (i.e., prehistoric) significance were located, due to the extreme disturbance of the relocation alignment areas by past human occupation of the area. The one site of potential historic significance located is the Wabash Roundhouse.

The Wabash Roundhouse, now owned by the Norfolk and Western Railroad, is located at the jog in Illinois Route 3 directly southwest of Brooklyn. Existing remains of the roundhouse complex include one bay of the roundhouse itself, the remaining roundhouse foundations, the turntable, a coal tipple, and associated trackage. The roundhouse probably dates to the second or third decade of the 20th century. It is constructed of brick and architrave decoration and sits on a foundation and floor of concrete. It also had interior concrete firewalls between every 3-5 stalls. The turntable is still intact, complete with the control booth.

Most significantly, the Wabash Roundhouse has the only intact coal tipple in the East St. Louis MARGE project area. This structure, which was used to fill the coal tenders and the sand reservoirs of the engines, is located north of the roundhouse. It is built of concrete and steel, and was capable of servicing four engines simultaneously through the use of two hoppers. The flow from the hoppers was activated by the use of caged counterweights and chutes. Two of the counterweights are still present, although the chutes are missing.

The sand pipes (sand was used to provide traction on slippery rails) are located on the north side of the tipple. The coal was loaded into the hoppers from storage piles by a rotating set of buckets, called a skip. When one bucket of coal was going up, the other, having dumped its contents into the hoppers, was coming down.

To the east of the coal tipple are two structures of concrete and steel. The small building apparently held lubricating oil supplies, while the larger building was used for sand storage and drying (the sand had to be thoroughly heat-dried prior to its use by the engines). The small heater for the dryer was probably located on the lower floor of the structure.

Because an awareness of the use and appearance of a coal tipple is important to the understanding of the workings of a roundhouse complex, and because this is the only remaining coal tipple in the project area, this site should be considered for inclusion in the National Register of Historic Places. A formal "Request for Determination of Eligibility" will be initiated for the Wabash Roundhouse, and if it is found to be eligible for inclusion on the National Register, it will be subject to Section 4(f) of the Department of Transportation Act of 1966 and the regulations of the Advisory Council on Historic Preservation (36 CFR Part 800), if it is to be affected by the project. Appropriate documentation of compliance with these regulations will be supplied in the Final Environmental Impact Statement on the project.

SOCIO-ECONOMIC IMPACTS:

The general impacts of the three alternatives for relocating Route 3 would be relatively minor. The impact areas of residential and business displacement, transportation, land use, effect on minority groups, energy use, and employment are discussed below. The "worst case" impacts, as in other impact areas, has been included in the overall project discussion in the EIS.

Residential Displacement:

Brooklyn - The East and Split Plans for relocating Route 3 will displace two residential structures (one vacant), estimated to house three people. Consultation with area real estate brokers and examination of newspaper listings indicates that suitable replacement housing is available within three miles of Brooklyn and Venice. No other impacts are anticipated.

East St. Louis - Rerouting Route 3 through this area, where the relocated Route 3 branches off of St. Clair Avenue north of I-55/70 will involve (under both alignments) relocating two single family units (six people) and purchasing three vacant dwelling units. Again, adequate and suitable replacement housing is available in East St. Louis.

Venice - All alternatives for relocating Route 3 would cause residential displacements on the westernmost edge of the city in an area that is separated from the city proper by both the Q corridor and the existing Route 3/McKinley Bridge approach complex. All alternatives would displace 16 occupied structures which have 20 households (or an estimated 58 people), although five of the structures could possibly be retained if access were maintained. It is estimated that eight of the 58 persons are elderly and that 25 are children. The value of the housing is estimated to be less than $15,000 per unit and rents average less than $110 per month. A survey of neighborhoods in Venice revealed that suitable and sufficient numbers of replacement housing units are presently available. As with all displacements under the MARGE project, the provisions of the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 will be applied to mitigate the adverse impacts.

Business Displacement:

Brooklyn - The East and Split Plans for relocating Route 3 will displace an American Car Foundry facility in Brooklyn, which is leased from the N&W Railroad. It includes an elevator and a fueling station in addition to the main building. Employment is estimated at between one and ten. In addition, a storage tank may be displaced, and some loss of parking at the Illinois Central Gulf Trailer-on-Flatcar Yard is expected. Adequate room to replace these facilities exists adjacent to their current locations.

Unincorporated Areas in Canteen and Stites Townships - Three small-scale family-operated hog operations will be affected. One operation is located in Stites Township, while the others are in Canteen Township. Three families apparently live on the premises of the Stites Township site; they feed hogs and rent pens for $5-$10 per month. No other employees appear to be involved at the sites. One of the operations is apparently conducted rent-free on railroad-owned land.

East St. Louis - Relocating Route 3 will also displace a bar in East St. Louis. The bar has an estimated employment of fewer than five people and estimated taxes of less than $300. It will probably have difficulty relocating in a comparable existing structure in the immediate vicinity of its present location. A small-scale junk yard operation near the bar will also be displaced; the operator is self-employed.

Venice -Relocating Route 3 will displace a bar north of the McKinley Bridge in Venice. It is small, with an estimated employment of fewer than five people and estimated taxes of less than $300. It should have no difficulty in relocating in the same general area.

Changes in the rail alignments at McKinley Bridge, or the relocation of Route 3, will also displace the McKinley Bridge office, which is rented from the City of Venice. Four full-time and three part-time employees are involved. The office can be satisfactorily relocated as a part of whichever project element is implemented first. At this time, it is believed that the rail construction will be implemented in this area prior to the Route 3 relocation construction.

Transportation:

Access to the McKinley Bridge and the northern industrialized areas of the St. Louis metropolitan area will be improved by constructing the new Route 3. With any of the design alternatives, traffic volumes passing National City will probably decrease, especially under the Two-Yard Alternative. Since the new Route 3 will not pass near the residential area of National City, less traffic may be expected through the city than presently exists.

Brooklyn - Transportation impacts in Brooklyn will only occur as a part of the Route 3 plans. Rerouting Bend Road around Brooklyn, which is a possible element under New Yard construction, would help reduce the amount of traffic which presently goes through the city. Also, relocated Bend Road would have excellent access to the realigned Route 3. Traffic past the school located on 4th Street at Route 3 will be reduced appreciably.

Venice - The Route 3 relocation will create a complete by-pass of the city which will result in less traffic through the center of Venice. Reduced noise, dust, traffic congestion, and vehicular pollution will result. At the same time, accessibility to Venice, as a whole, will be improved. A reduction in truck traffic could possibly occur in (and through) the Venice area as a result of consolidating trailer-on-flatcar activities in a new facility (see the EIS, or the separate Technical Supplement - Common TOFC Yard).

Other Impacts:

Energy Impacts: - The amount of traffic on Route 3 indicates that no significant impact on total energy use in the project area can be expected. What impacts there will be have been included in the overall project Energy Analysis (see the EIS or the Socioeconomic Impacts Technical Supplement).

Impacts on Minority Groups and the Elderly and Handicapped: - No significant impacts on these groups are expected.

Land Use Impacts: - No significant impacts are expected. The overall project has been coordinated with the Southwestern Illinois Metropolitan and Regional Planning Commission and the East-West Gateway Coordinating Council (the area's A-95 review agency and Metropolitan Planning Organization), and has been cited as a beneficial planning goal by each.

Public Recreation Lands: - No impacts are expected for the Route 3 relocation.

Employment Impacts: - The impacts of construction employment for the relocation of Route 3 have been analyzed, using the Federal Highway Administration's estimates of November, 1980, as shown below. These are based on the 1979 average wage of $8.60 per hour.

Employment by Project Type - Jobs/$1 billion

| | On-site | Off-site | Induced | Total |
|---|---|---|---|---|
| Grade and drain | 21,910 | 22,090 | 61,350 | 105,350 |
| Bituminous Paving | 13,150 | 13,250 | 36,820 | 63,220 |
| PCC Paving | 11,040 | 11,130 | 30,910 | 53,080 |
| Structures | 16,700 | 16,830 | 46,760 | 80,290 |
| Miscellaneous | 11,120 | 11,210 | 31,140 | 53,470 |
| Overall (highways) | 16,400 | 16,500 | 45,900 | 78,800 |

On this basis, the three design alternatives are expected to create 2,500 to 2,800 person-years of employment. The project is not expected to result in the loss of any permanent employment.

National Urban Policy: - As an intrinsic part of the overall MARGE effort, the relocation of Route 3 will contribute to the fulfillment of the National Urban Policy, as discussed in the EIS itself.

MITIGATION MEASURES:

The primary adverse impacts of the relocation of Route 3 will be the displacement of wetlands, wildlife habitat, the residential structures in Venice, and the American Car Foundry shop in Brooklyn. Appropriate mitigation measures are available in each case.

Ecological Systems:

The construction impacts to the 0.3 acres of surface water would be minimal with proper mitigation. The mobile wildlife forms would have access to the remainder of the area, and with proper mitigation the ecological value of the area would be enhanced.

By implementing a careful program of revegetating disturbed areas and between the roadway lanes and viable wildlife habitats, it is believed that the seriousness of the impacts on natural ecological systems (as shown in Table 2) can be mitigated. The total loss of the 0.5 acres of wetland can also be mitigated by using erosion control, revegetating disturbed areas with wetland species, and carrying-out construction in the dry season. These proposals will be included in the overall MARGE EIS, as agreed-upon between the Illinois Departments of Transportation and Conservation, and the Fish and Wildlife Service of the U.S. Department of the Interior. In general, mitigation of the impacts on natural ecological systems has been approached with these agencies in terms of the overall project. For example, the Common Trailer-on-Flatcar Yard, another proposed project element, displaces 57 acres of wetland. The additional loss of 0.5 acres under the Route 3 relocation has been considered within the discussions of that much more major impact. No mitigation measures for the loss of 6 acres of prime farmand exist. All prudent and feasible alternatives to this taking will be exhaustively studied.

Displacement Impacts:

The provisions of the "Uniform Relocation Assistance and Land Acquisition Policies Act of 1979," as adopted by the U. S. Department of Transportation, will be implemented.

This will ensure that no residents are displaced until suitable, adequate, decent, safe and sanitary housing is available for their relocation. Further details of supplementary payments, moving assistance, tenant relocation payments, etc., are available from the Bureau of Land Acquisition, Division of Highways, Illinois Department of Transportation, Springfield, Illinois.

Historic Site Impacts:

The East and Split Plans for the relocation of Route 3 might adversely affect the remnants of the Wabash Roundhouse by including it in a quandrant of the Bend Road interchange. Therefore, it is recommended that data recovery techniques be pursued, centering on the measured drawing of the tipple and its associated structures by the National Advisory Engineering Record. Relocation and preservation of the coal tipple should also be investigated if the relocation of Route 3 requires its displacement.

Other Impacts:

The relocation of Route 3 would improve transportation access in the area, reduce (in the main) levels of noise pollution, improve air quality, and have no other significant impacts.

# CONCLUSION

The complete relocation of Route 3 would be about 3 miles in length. Staged construction of this relocation would involve two segments of a mile and a half each. The first (southern) segment would include acquisition of additional properties between existing Route 3 and CD Yard, and grade separation for the throats of CD Yard and New Yard. This segment is an intrinsic part of the rail restructuring project to maintain continuity along Route 3. The second (northern) stage could include acquisition along the western edges of the populated areas of Brooklyn and Venice. This segment, while not absolutely necessary to the rail restructuring project, would, if not built, damage the effectiveness of relocated Route 3, leaving a 1.5-mile-long gap in the otherwise completely-improved highway between Alton and East St. Louis.

The impacts of relocating Route 3 must be assessed in terms of the benefits resulting from the road's relocation. These benefits include allowing an intrinsic part of the overall MARGE project - the construction of additional rail yard capacity - to go forward, since the alternative impacts of closing Route 3 to traffic are clearly not acceptable. In this sense, the overall project benefits to the local communities, the region, and the nation must be considered when assessing impacts of Route 3. The EIS and its associated Technical Supplements, as referenced herein, provide details on those benefits.

The timeframe for implementation of this project includes immediate pursuit of Stage 1 of whichever design alternative is selected through the environmental impact analysis process. It is intended to include Stage 1 of the relocation of Route 3 into the Stage 1 effort for the overall rail terminal restructuring project, which is envisioned as a $95 to $105 million effort, requiring two years. If no insurmountable obstacles arise in the course of soliciting comments and finalizing this Draft EIS, implementation could begin (with preliminary engineering) as early as 1982.

EXHIBIT A

# STUDY AREA

VICINITY MAP

LEGEND

- ROUTE 3 RELOCATION AREA
- RAILROADS
- INTERSTATES
- PROPOSED RAILROAD YARD
- CITY STREETS
- EXISTING RAILROAD YARD

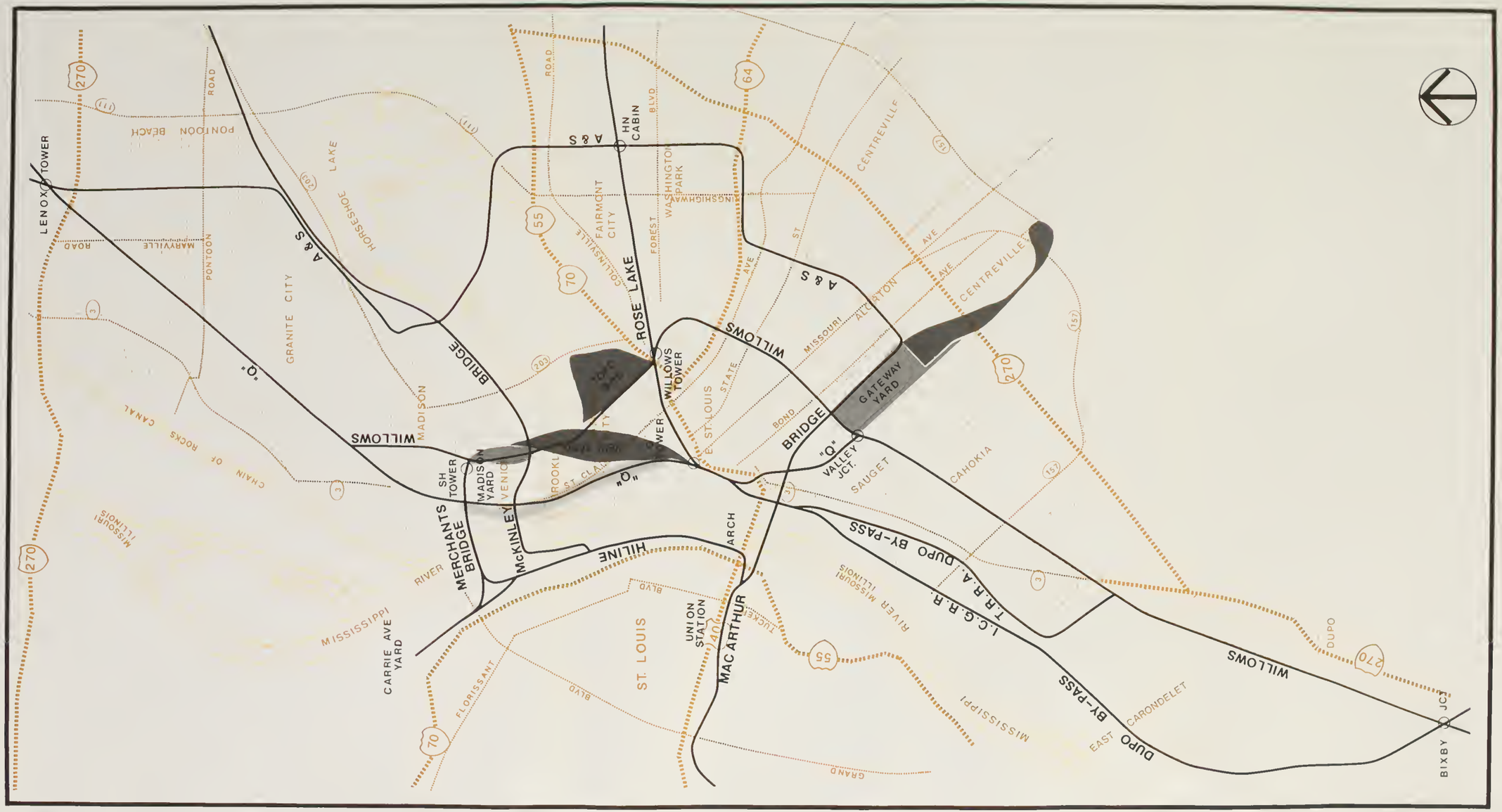
6000 3000 0 5700

SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

EXHIBIT A

# STUDY AREA



VICINITY MAP

LEGEND

- ROUTE 3 RELOCATION AREA
- RAILROADS
- INTERSTATES
- PROPOSED RAILROAD YARD
- CITY STREETS
- EXISTING RAILROAD YARD

6000 3000 0 5700

SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

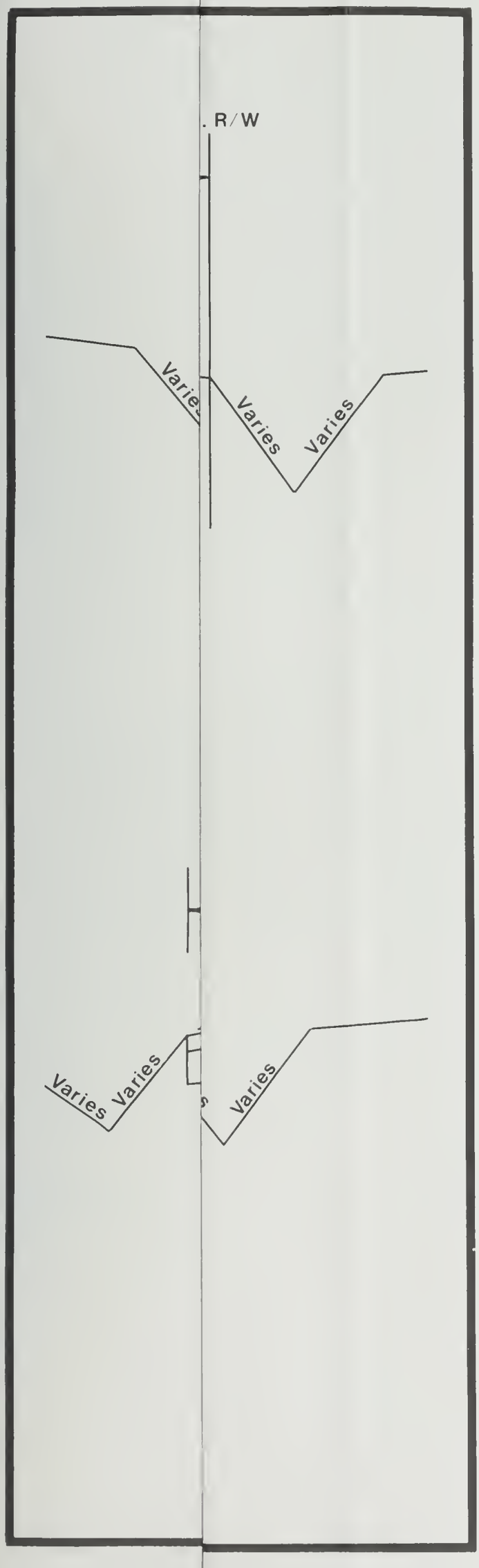
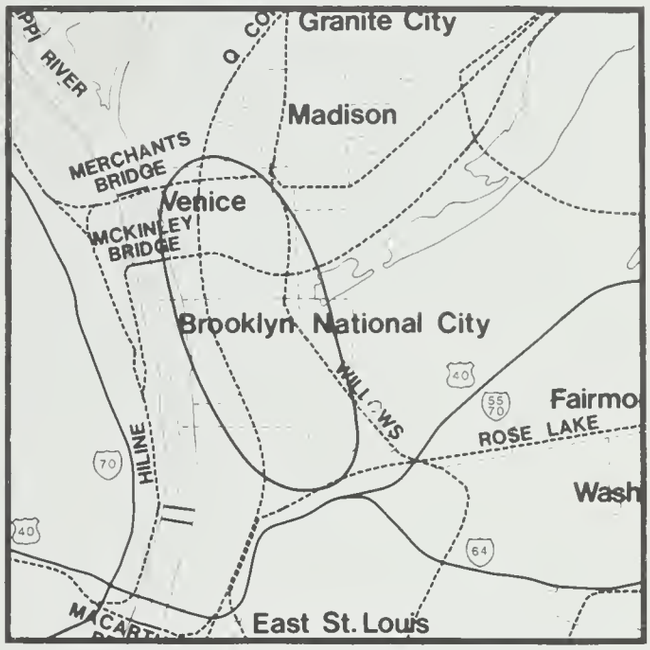



EXHIBIT B

# ROUTE 3 RELOCATION TYPICAL SECTIONS



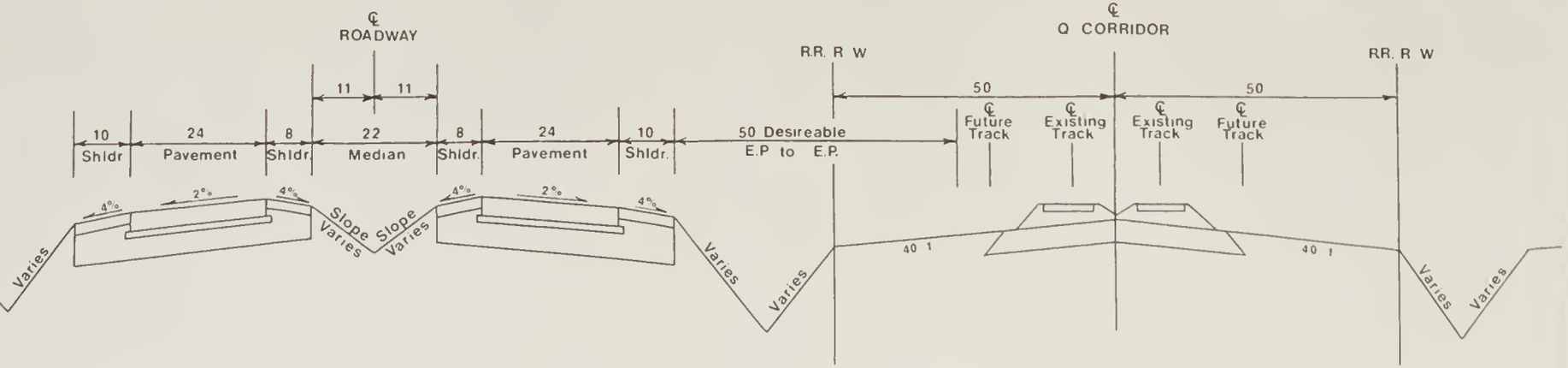

VICINITY MAP

SCALE:
Vert.- 1" = 10'
Horiz.- 1" = 20'

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

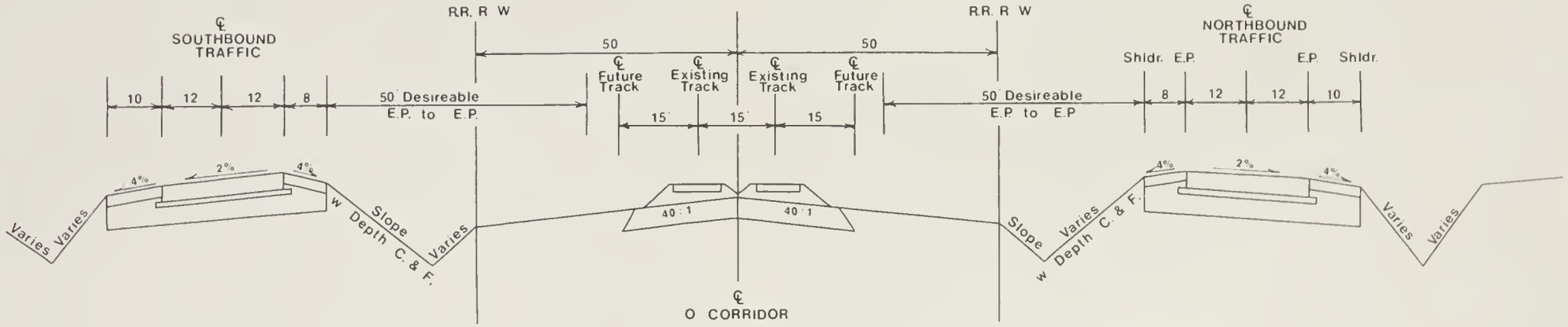
EXHIBIT B

# ROUTE 3 RELOCATION TYPICAL SECTIONS




ALTERNATIVE 1

ALTERNATIVE 2 (looking downstation)




ALTERNATIVE 3

VICINITY MAP

SCALE:
Vert.- 1" = 10'
Horiz.- 1" = 20'

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

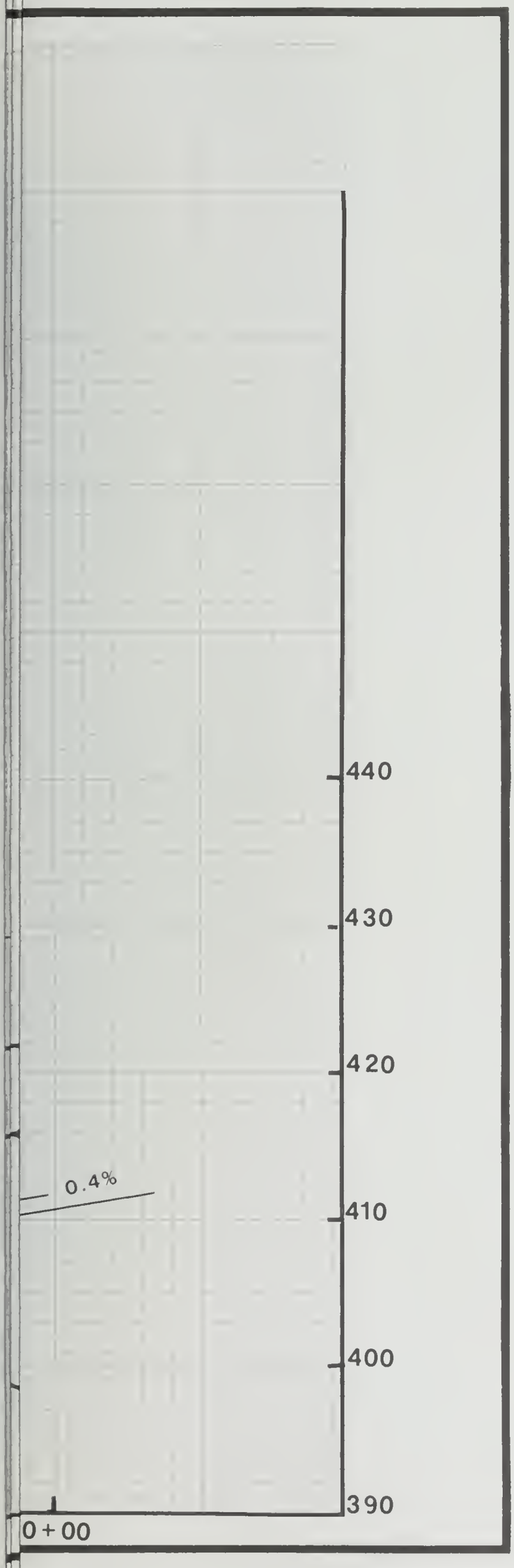
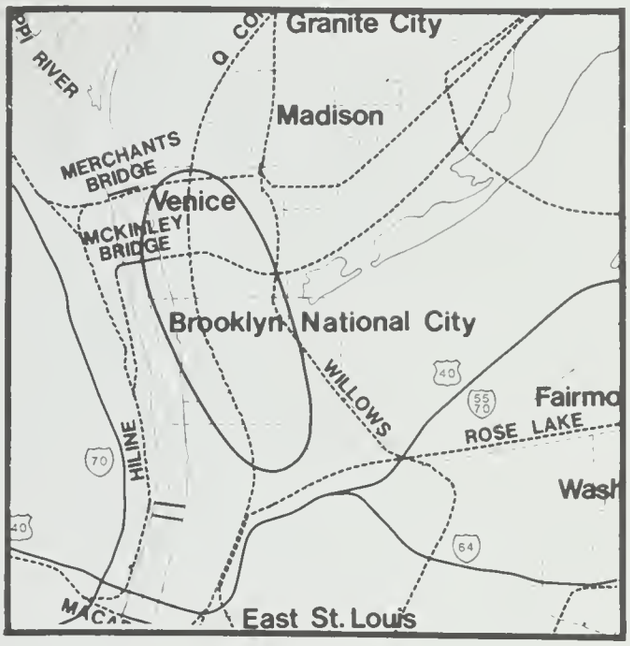



EXHIBIT C

# ROUTE 3 RELOCATION PROFILE




VICINITY MAP

LEGEND

VERTICAL PROFILE ——

SCALE:
Vert.- 1″ = 10′
Horiz.- 1″ = 400′

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

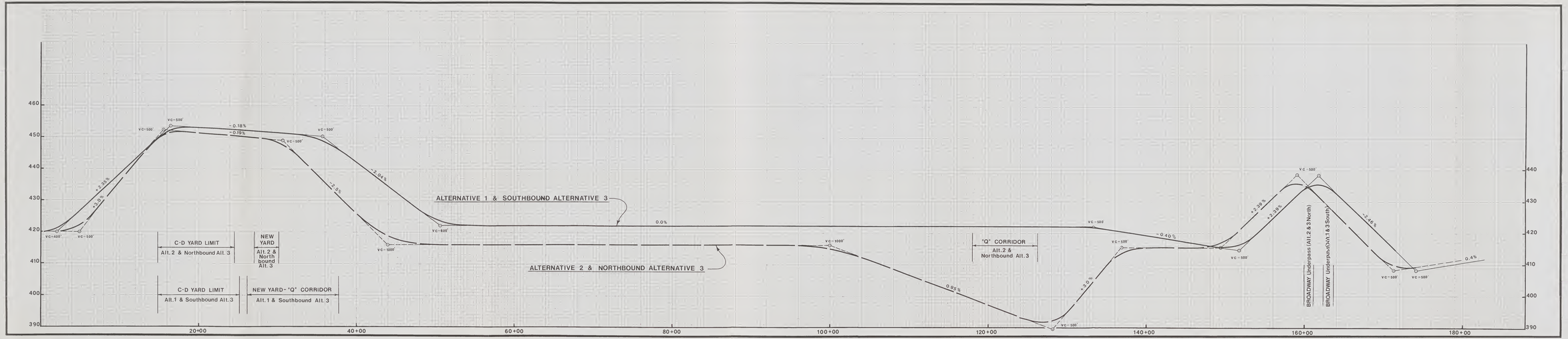



EXHIBIT C

# ROUTE 3 RELOCATION PROFILE

VICINITY MAP

LEGEND

VERTICAL PROFILE

SCALE:
Vert.- 1" = 10'
Horiz.- 1" = 400

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

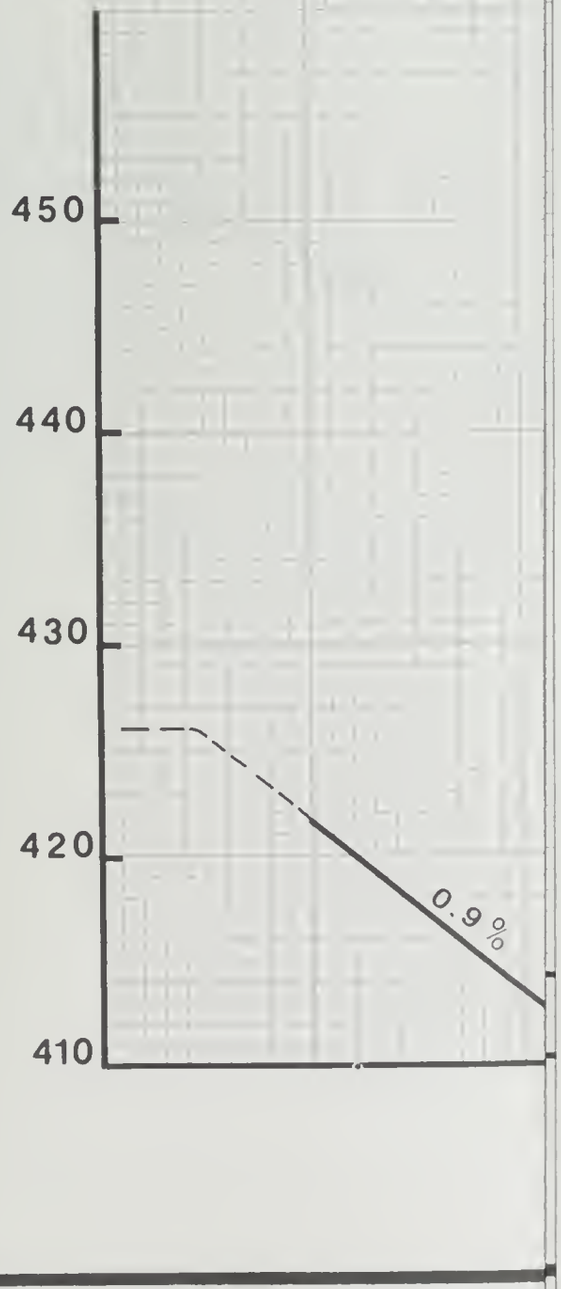
EXHIBIT D

# ROUTE 3 RELOCATION
# BEND ROAD PROFILE

VICINITY MAP

LEGEND

VERTICAL PROFILE ——————




SCALE:
Vert.- 1" = 10'
Horiz.- 1" = 400'

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

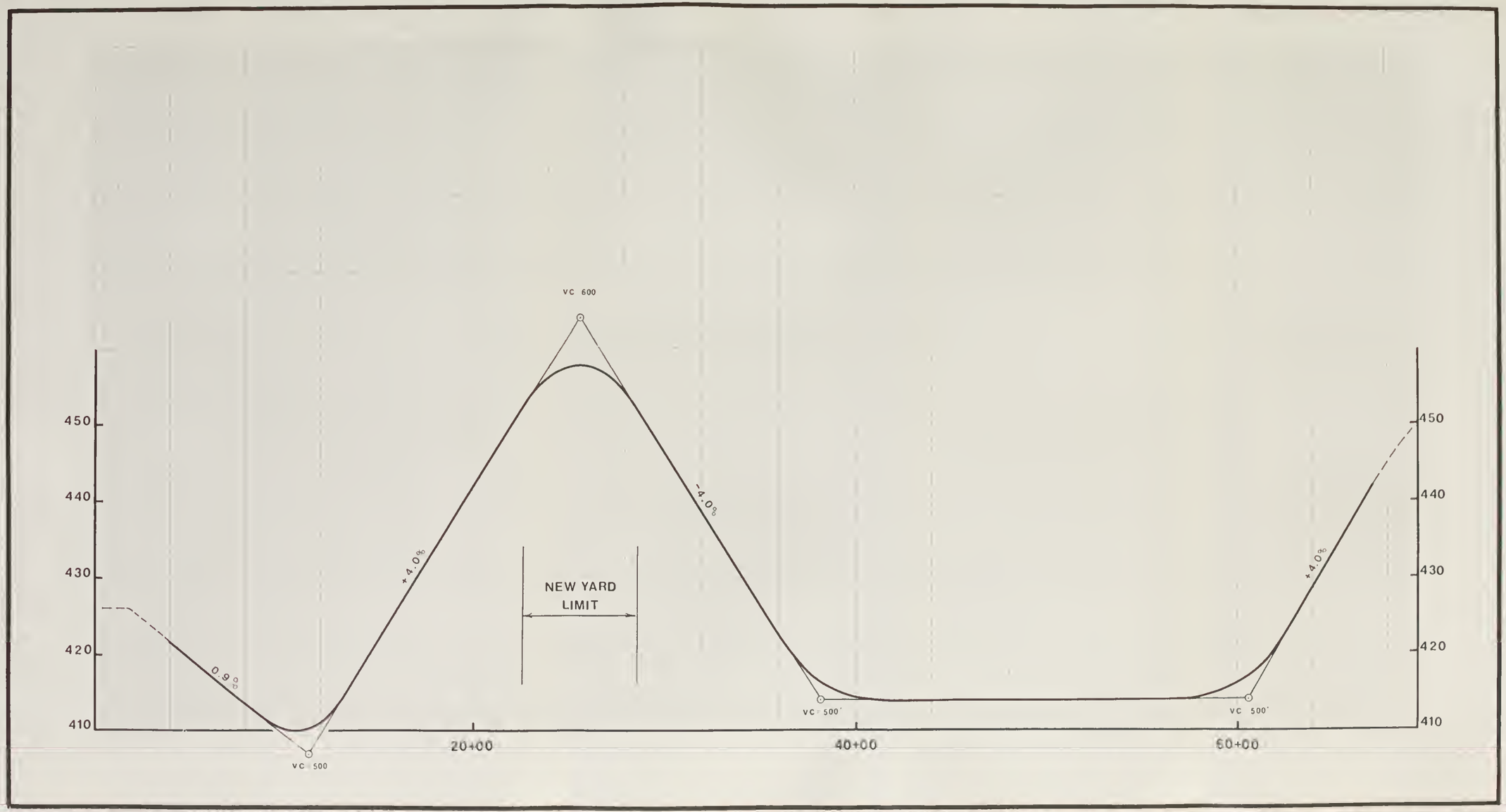
EXHIBIT D

# ROUTE 3 RELOCATION
# BEND ROAD PROFILE

VICINITY MAP

LEGEND

VERTICAL PROFILE ——




SCALE:
Vert.- 1 = 10
Horiz.- 1 = 400

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

EXHIBIT E

# AFFECTED NATURAL ENVIRONMENTS

VICINITY MAP

LEGEND

- RAILROAD TRACKS
- WATERWAYS
- PRIME FARMLAND
- SENSITIVE HABITAT
- EXISTING RAILROAD YARDS
- PROPOSED RAILROAD YARDS

6000 3000 0 5700

SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

EXHIBIT E

# AFFECTED NATURAL ENVIRONMENTS

VICINITY MAP

LEGEND

- RAILROAD TRACKS
- WATERWAYS
- PRIME FARMLAND
- SENSITIVE HABITAT
- EXISTING RAILROAD YARDS
- PROPOSED RAILROAD YARDS

6000 3000 0 5700

SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

EXHIBIT F - 1

# ROUTE 3 RELOCATION ALTERNATIVE NO. 1

VICINITY MAP

LEGEND

- PROPOSED ROUTE 3
- EXISTING ROUTE 3
- RAILROAD CORRIDOR
- NEW YARD R.O.W.
- ROUTE 3 R.O.W.
- 67 dBA Leq (1hour) MAX.

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP / ENVIRODYNE / KNIGHT

EXHIBIT F-1

ROUTE 3 RELOCATION
ALTERNATIVE NO. 1

VICINITY MAP

LEGEND

- PROPOSED ROUTE 3
- EXISTING ROUTE 3
- RAILROAD CORRIDOR
- NEW YARD R.O.W.
- ROUTE 3 R.O.W.
- 67 dBA Leq (1hour) MAX.

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

EXHIBIT F - 2

# ROUTE 3 RELOCATION ALTERNATIVE NO. 2

VICINITY MAP

LEGEND

- PROPOSED ROUTE 3
- EXISTING ROUTE 3
- RAILROAD CORRIDOR
- NEW YARD R.O.W.
- ROUTE 3 R.O.W.
- 67 dBA Leq (1 hour) MAX.

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP / ENVIRODYNE / KNIGHT

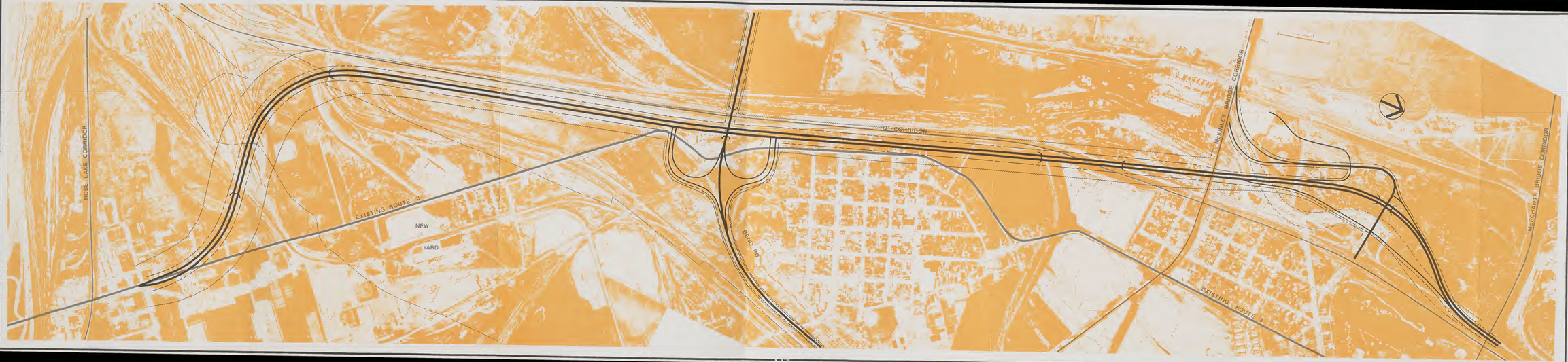
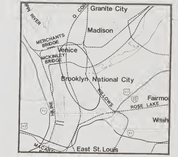



EXHIBIT F-2

ROUTE 3 RELOCATION ALTERNATIVE NO. 2




VICINITY MAP

LEGEND

- PROPOSED ROUTE 3
- EXISTING ROUTE 3
- RAILROAD CORRIDOR
- NEW YARD R.O.W.
- ROUTE 3 R.O.W.
- 67 dBA Leq (1 hour) MAX.

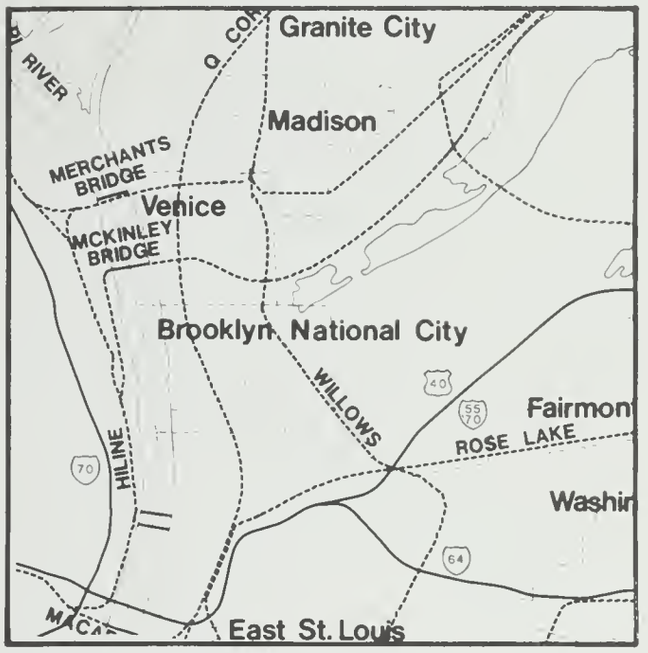
400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT

EXHIBIT G

# ROUTE 3 RELOCATION ALTERNATIVE NO. 3




VICINITY MAP

## LEGEND

- PROPOSED ROUTE 3
- EXISTING ROUTE 3
- RAILROAD CORRIDOR
- NEW YARD R.O.W.
- ROUTE 3 R.O.W.
- 67dBA Leq (1hour) MAX.

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP ENVIRODYNE KNIGHT

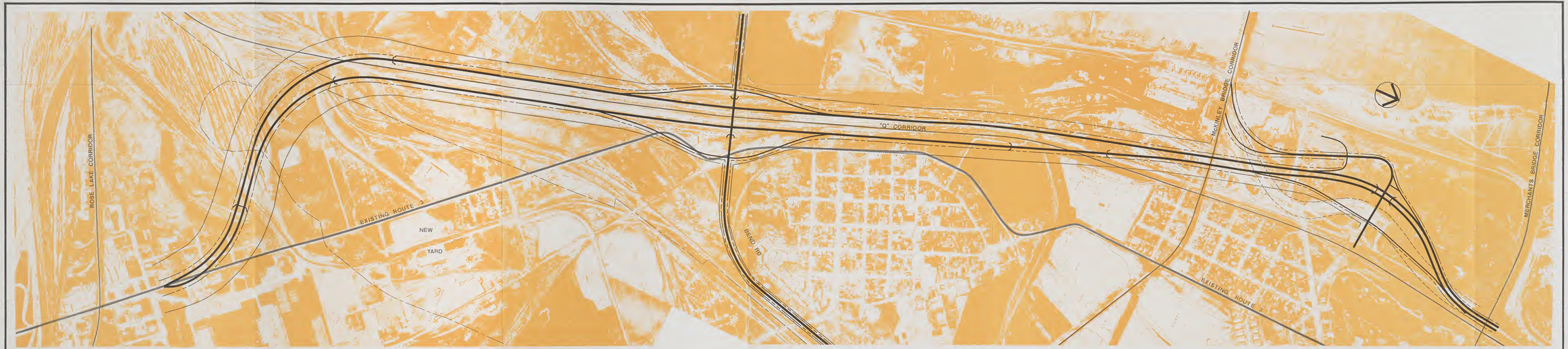



EXHIBIT G

# ROUTE 3 RELOCATION ALTERNATIVE NO. 3

VICINITY MAP

LEGEND

- PROPOSED ROUTE 3
- EXISTING ROUTE 3
- RAILROAD CORRIDOR
- NEW YARD R.O.W.
- ROUTE 3 R.O.W.
- 67dBA Leq (1 hour) MAX.

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP ENVIRODYNE KNIGHT

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